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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09 436,520 | 11-09-1999 | CLARENCE D. CHANG | 10054-2 | 6761 |

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EXAMINER

ILDEBRANDO, CHRISTINA A

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 08/01/2002

121

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/436,520

Applicant(s)

CHANG ET AL.

Examiner

Christina Ildebrando

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Del Rossi et al.

Del Rossi et al. (US 5,108,969) discloses a catalyst composition useful in hydrocarbon conversion processes. The reference teaches and claims an MCM-22 zeolite having a group VIII metal and tin thereon (column 8, lines 37-46 and claim 1).

The reference does not specifically teach the metal ruthenium but instead teaches the use of Group VIII metals. It has been held that when the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g. select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated. *Ex parte A*, 17USPQ2d 1716. If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic

formula before any of the compounds can be "at once envisaged." Refer also to *In re Schauman*, 197 USPQ 5 and MPEP 2131.02.

It is the position of the examiner that the teachings of the reference are drawn to a class of metals sufficiently limited to constitute anticipation. It is considered that one of ordinary skill would have been able to at once envision ruthenium as a group VIII metal taught by the reference.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Del Rossi et al.

Del Rossi et al. is applied as described above.

If in fact it is considered that the reference does not disclose the claimed composition with sufficient specificity to constitute anticipation, it is the position of the examiner that the claims would have been obvious to one of ordinary skill in the art. If the prior art does not in fact anticipate the instant claims, then the claims would have been obvious to one of ordinary skill in the art. *Ex parte Lee*, 31 USPQ 2d. 1105.

In this case, Del Rossi et al. does not disclose the use of the specific metal, ruthenium but teaches the generic group of compounds, "Group VIII metals". The claims differ from the reference by reciting a specific species and a more limited genus

than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the species taught by the reference, including those of the claims, because an ordinary artisan would have the reasonable expectation that any of the species of the genus would have similar properties and, thus, the same use as the genus as a whole.

Response to Arguments

5. Applicant's arguments filed 5/1/02 with regards to the Del Rossi et al. reference have been fully considered but they are not persuasive.

With regards to the Del Rossi et al. reference, applicant argues that the level of experimentation required makes the reference non-enabling for the claimed invention and further teaches away from using ruthenium, therefore not making the claimed invention obvious.

These arguments have been considered but are not persuasive. When making a determination of undue experimentation, one has to consider the state of the prior art, the level of one of ordinary skill in the art, and the quantity of experimentation needed to make or use the invention based on the content of the prior art disclosure. In this case, Del Rossi et al. clearly teaches a catalyst comprising a MCM-22 zeolite, a Group VIII noble metal, and a promoter such as tin. One of ordinary skill would at once recognize that there are only 9 Group VIII metals and would further be able to "at once envisage" every member and combination taught by the reference. Therefore, it is the position of the examiner that there would be no undue experimentation.

Further, the fact pattern of the instant case appears to be the same as that in *Ex parte A* and *In re Schaumann* discussed by applicant in the response, i.e. anticipation can only be found if the classes of substituents are sufficiently limited or well delineated and that one of ordinary skill must be able to write the name of each of the compounds before any of the compounds can be at once envisaged. Applicant has not presented any evidence or arguments tending to show that the recitation "Group VIII metal" is not a sufficiently limited class or present any evidence or arguments tending to rebut the prima facie case of anticipation set forth by the examiner. With regards to the determination of obviousness, applicant has not demonstrated that the specific specie claimed possesses any property not present in the genus taught by the reference. Indeed, it is noted that the use of other Group VIII metals falls within the scope of applicants inventive examples in the specification.

Applicant further alleges that the catalyst containing ruthenium and tin has improved results. These results have been considered but are not persuasive. First, it is not clear that there have been any direct comparisons with the closest prior art. It is not clear what the improvement is or to what the improvement is relative. No side by side comparisons have been done.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1754

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Ildebrando whose telephone number is (703) 305-0469. The examiner can normally be reached on Monday-Friday, 7:30-5, with Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

CAI
July 26, 2002

*Wayne A. Langel
Primary Examiner
GAI 1754*